

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. -146. (Cancelled)

147. (Currently amended) A radioactively labeled compound analog of a fatty acid that is can be taken up by mammalian tissue, comprising the formula wherein the compound is selected from the group consisting of:

[¹⁸F]-9-fluoro-3,4-cyclopropylheptadecanoic acid;

[¹⁸F]-9-fluoro-3,4-cyclobutylheptadecanoic acid;

[¹⁸F]-9-fluoro-3,4-cyclopentylheptadecanoic acid ;

[¹⁸F]-17-(4-fluorophenyl)-3,4-cyclopropyl-heptadecanoic acid; or and

[¹⁸F]-17-(4-fluorophenyl)-3,4-cyclobutyl-heptadecanoic acid.

148. (Currently amended) The radioactively labeled analog of a fatty acidcompound of claim 147, wherein said analog compound is metabolically trapped in said tissue by permitting the occurrence of the a first beta-oxidation step in which the a carbon atom to which said a substituent is bonded is beta to the carboxyl carbon atom, while preventing the cleaving off from said analog compound of the two carbon atoms to the right of the carbon atom to which said substituent is bonded.

149. (Currently amended) The radioactively labeled analog of a fatty acidcompound of claim 147, wherein said tissue is heart tissue.

150. (Currently amended) The radioactively labeled analog of a fatty acidcompound of claim 147, wherein said analog compound emits detectable positrons after being taken up by said tissue.

151. (Currently amended) The radioactively labeled analog compound of claim 147, wherein said an organic substituent reduces metabolic hydroxylation of said analog compound.

152. – 153. (Cancelled)

154. (New) The compound $[^{18}\text{F}]\text{-9-fluoro-3,4-cyclopropylheptadecanoic acid}$.

155. (New) A pharmaceutical composition comprising a radioactively labeled compound of claim 147 and a pharmaceutically acceptable carrier.

156. (New) The pharmaceutical composition of claim 155, wherein the pharmaceutically acceptable carrier comprises salts or electrolytes.

157. (New) The pharmaceutical composition of claim 155, wherein the pharmaceutically acceptable carrier comprises saline.

158. (New) A pharmaceutical composition comprising $[^{18}\text{F}]\text{-9-fluoro-3,4-cyclopropylheptadecanoic acid}$ and a pharmaceutically acceptable carrier.

159. (New) The pharmaceutical composition of claim 158, wherein the pharmaceutically acceptable carrier comprises salts or electrolytes.

160. (New) The pharmaceutical composition of claim 158, wherein the pharmaceutically acceptable carrier comprises saline.